United States Department of Agriculture | Forest Service | Pacific Northwest Region
333 SW First Avenue (97204)
PO Box 3623
Portland, OR 97208-3623
503-808-2468

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Mr. Robert Beraud
Plymouth Generating Facility Comments
BPA Communications Office KC-7
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Dear Mr. Beraud:

We have reviewed the Plymouth Generating Facility Draft Environmental Impact Statement (DEIS). Specific comments are included in an enclosure to this letter.

Our comments on this draft are similar to those we made recently on the Wallula Project EIS. Our overarching concerns center on the fact that previous decisions have resulted in a power transmission grid infrastructure that is a magnet for continued power plant development along it's length. The full cumulative effect on the regions Class I areas and the Columbia River Gorge past, present and future has not been revealed. We do recognize this development is inevitable (note our recent letter to EPA, enclosed), however, that very fact indicates the air quality related issues raised will continue to worsen unless mitigation (full offsets) is required from every new source. A-1 A-2

The draft Plymouth EIS seems to have lost the progress made in the Wallula final in that the authors fail to recognize the acid deposition, ecosystem disturbance, and cultural resources issues that have been identified in the Columbia River Gorge and potentially in the regions Class I areas.

In winter the Gorge is the primary recipient of the stagnant polluted air that drains out of the Columbia Basin; that is almost certainly a major contributor to the ecosystem and cultural resource deterioration. Every new source or emission increase, regardless of size, exacerbates this problem as long as there is no requirement for mitigation. There is no leverage under the Clean Air Act or the State permitting rules to deal with the contributions power plants make to these problems in the Gorge. This is a Federal issue that can only be dealt with at the Federal Level.

RESPONSE TO COMMENT A-1

Several comments noted that existing air quality in the Columbia River Gorge National Scenic Area (CRGNSA) was impaired and that the cumulative effect of additional emissions from Plymouth Generating Facility had not been adequately evaluated.

Existing air quality in the CRGNSA is generally good, with relatively low average $PM_{2.5}$ concentrations (about 6 µg/m3). Ozone concentrations are comparable to those in urban areas of western Oregon and Washington. There are, however, some concerns about visibility degradation in the CRGNSA.

A U.S. Forest Service (USFS) issues paper focusing on the Gorge indicates that "the primary sources of air pollutants in the Gorge come from the Portland/Vancouver area and from sources within the Scenic Area" (USDA 2002). The Forest Service issues paper explains: *"The USDA FS is collaborating with the air regulatory community from Oregon and Washington as well as the EPA, and visibility research organizations in an ongoing monitoring and analysis project to attempt to fully understand the nature of visibility impairment in the Scenic Area. Until this effort is concluded, and some of the current uncertainties are explained, with an unbiased scientific approach, it is premature to speculate about causes."*

The Draft Environmental Impact Statement (EIS) considers the effect that PGF emissions would have on existing air quality and visibility in the CRGNSA, as well as the cumulative effect on air quality and visibility of emissions from the PGF and other power plants proposed for the area.

The Draft EIS assesses cumulative effects in two ways. The first assessment was intended to evaluate the cumulative effects of foreseeable future sources on local air quality. It considered eight other existing and reasonably realistic proposed power plants in the vicinity of PGF, and evaluated local air quality impacts using the ISCST model (see Appendix B1 in the Draft EIS). That assessment demonstrated that the cumulative effects on local air quality would be well below established ambient air quality standards.

The second assessment was intended to evaluate the cumulative effect of foreseeable future emission sources on regional air quality and visibility. It considered 14 other recently-permitted or proposed power plants in the Pacific Northwest. That assessment included such local projects as Hermiston Power, Coyote Springs 2, Goldendale Energy Center, the "Cliffs" project in Goldendale, Wallula Power, and the Confederated Tribes' Wanapa Energy Center. The assessment followed a procedure that BPA previously applied to evaluate regional cumulative air quality impacts from 45 proposed power plants throughout Washington, northern Idaho, and northern Oregon. The original analysis indicated that even assuming that all 45 power plants were built and operating, cumulative ambient concentrations would represent a small fraction of ambient air quality standards. Many of these 45 proposed plants are no longer under active development. That study also determined that deposition of nitrogen and sulfur would be very small in comparison with existing deposition rates and criteria suggested by the USFS. The study concluded that the only concern if all 45 power plants were built and operating would be the potential for visibility degradation in Class I areas on days that would otherwise have very good visibility.

Therefore, BPA began evaluating new proposed power projects individually, using the same dispersion modeling procedures and assessment criteria. BPA began with a "baseline" group of power plants that had recently come on line or that BPA determined were reasonably likely to be constructed. The concept was to start with projects that were not yet included in ambient measurements of pollutant concentrations and other measures of air quality, but were highly likely to be completed and come on line. As a new power plant rose to the top of the queue awaiting connection to BPA's grid, its emissions would be added to the baseline group to assess both the individual plant's contribution to visibility impacts and the cumulative impact of the entire group of projects on visibility. As discussed in Appendix B-2 of the Draft EIS, 14 power plants were added to the baseline group prior to the evaluation of PGF. However, it is now unclear whether several of the power plants considered in this analysis will be completed in the foreseeable future (e.g. Wallula Power, the Wanapa Energy Center, Satsop, Mint Farm, Goldendale).

The USFS was a participant in a national forum of governmental air quality agencies that established procedures and criteria for evaluating visibility impacts from new industrial sources. The FLAG2 protocol identified the change in 24-hour average extinction as the appropriate metric for evaluating visibility impacts. Based on the FLAG2 criteria, an impact occurs when the proposed source causes a 5 percent change in extinction on a very clear day (a day with visibility equal to or better than 97.5 percent of other days).[1] The evaluation of PGF indicated that its emissions would never cause a 5 percent or greater reduction in visibility in Class I areas or the CRGNSA. Therefore, the Draft EIS concludes that the PGF's emissions would not have a significant adverse impact on visibility, even on days with very good visibility.

A second FLAG2 criterion states that on clear[2] days when cumulative visibility impacts result in a 10 percent change in extinction, the individual source contribution to extinction should be less than 0.4 percent. The BPA protocol considers the cumulative impact to be that attributable to the baseline power plants and subsequent power plants that were allowed to connect to the grid. The Draft EIS analysis indicates that PGF's contribution would exceed 0.4 percent criteria on only one day per year at the CRGNSA and one day per year at Mt. Hood Wilderness Area. This assessment is based on conservative assumptions, as discussed in the Draft EIS.

In addition to evaluating potential visibility and deposition impacts (see Responses to Comments A-9, A-10 and A-12), the CALPUFF modeling system was used to assess concentrations of NOx, PM_{10}, and SO_2 attributable to emissions from the facility in Class I areas and the CRGNSA (see Table A-1-1, which has been added as Table 3.2-9 of the EIS). The results indicate that PGF would not significantly contribute to concentra-

1 For the CRGNSA and Spokane Indian Reservation, the BPA regional haze modeling assessment based background aerosol concentrations on top 20 percent days with the best visibility. These data were provided by the USFS for the CRGNSA and allow for a more realistic assessment that considers existing development and urban areas within the CRGNSA.

2 Clear days are defined (as above) as those days with visibility equal to or greater than 97.5 percent of other days.

Table A-1-1
Maximum Concentration Predictions Attributable to PGF Emissions (µg/m3)

Area [a]	Annual Average NO_2 [b]	Annual Average PM_{10} [c]	Annual Average SO_2	24-hour PM_{10} [c]	24-hour SO_2	3-hour SO_2
Diamond Peak Wilderness	0.0000	0.0001	0.0000	0.005	0.001	0.002
Three Sisters Wilderness	0.0000	0.0003	0.0001	0.009	0.002	0.006
Mt. Jefferson Wilderness	0.0000	0.0004	0.0001	0.012	0.003	0.009
Strawberry Mtn. Wilderness	0.0000	0.0004	0.0001	0.016	0.005	0.019
Mt. Hood Wilderness	0.0001	0.0009	0.0002	0.033	0.009	0.021
CRGNSA	0.0003	0.0016	0.0005	0.080	0.021	0.048
Eagle Cap Wilderness	0.0001	0.0007	0.0002	0.013	0.004	0.019
Hells Canyon Wilderness	0.0001	0.0007	0.0002	0.009	0.003	0.016
Mt. Adams Wilderness	0.0000	0.0004	0.0001	0.011	0.002	0.010
Goat Rocks Wilderness	0.0000	0.0003	0.0001	0.010	0.002	0.006
Mt. Rainier National Park	0.0000	0.0002	0.0000	0.007	0.001	0.005
Olympic National Park	0.0000	0.0001	0.0000	0.005	0.001	0.003
Alpine Lakes Wilderness	0.0000	0.0002	0.0001	0.007	0.002	0.006
Glacier Peak Wilderness	0.0000	0.0002	0.0000	0.006	0.002	0.004
North Cascades National Park	0.0000	0.0001	0.0000	0.004	0.001	0.003
Pasayten Wilderness	0.0000	0.0002	0.0000	0.004	0.001	0.003
Mt. Baker Wilderness	0.0000	0.0001	0.0000	0.003	0.001	0.002
Spokane Indian Reservation	0.0002	0.0010	0.0003	0.013	0.005	0.019
Maximum	0.0003	0.0016	0.0005	0.08	0.021	0.048
EPA Proposed Class I SIL	0.1000	0.2000	0.1000	0.300	0.200	1.000
Percent of Class I SIL	0.3	1	1	27	11	5

[a] CRGNSA and Mt. Baker Wilderness areas are not Class I areas.

[b] All NOx is assumed to be converted to NO_2

[c] PM_{10} includes sulfates and nitrates.

tions of these key pollutants at any Class I area or the CRGNSA. The ambient impacts predicted to result from PGF emissions are so small that those emissions would not contribute to significant cumulative effects when combined with other sources, so a more detailed cumulative assessment was not warranted.

The Draft EIS focuses on the impacts associated with the proposed project, in comparison to the No Action Alternative, and therefore addresses only recently permitted and proposed power plants. Two types of analyses were conducted to determine the PGF's potential impacts on visibility. Both use conservative assumptions, which likely overstate project impacts. The first analysis assumes that every day of the year currently has excellent visibility. By assuming that current visibility is always excellent, rather than by taking into account visibility degradation that currently occurs on some days as a result of natural conditions or emissions from existing sources, the analysis overstates the potential effect of PGF emission on visibility. The results of this analysis are then compared to established FLAG2 criteria. If the established criteria indicate that PGF emissions would not cause a significant cumulative effect on visibility, then a more detailed quantitative analysis of every existing and potential source of air pollution and its impact on visibility is not necessary.

The second analysis uses a more conservative approach to evaluating cumulative impacts by assuming existing sources cause visibility degradation every day of the year. The analysis then considers how often the PGF would contribute to visibility degradation of 0.4 percent or greater. This assessment conservatively assumes that the background visibility is representative of the best 10 percent visibility days. In other words, we evaluate impacts based on a good visibility day while applying the impact criterion that applies when the cumulative impact of all man-made sources causes a bad visibility day. Despite these conservative assumptions, the analysis predicted that emissions attributable to PGF could exceed the 0.4 percent change criterion on only 14 days of the year. The results for CRGNSA are summarized in Table A-1-2, which has been added as Table 5 of Appendix B2 to the EIS. Given the

Table A-1-2
CRGNSA Haze Impacts Attributable to PGF

	Maximum Extinction Attributable to PGF (1/Mm)	Maximum Change in Extinction (%)	Number of Days With Significant Change in Extinction
Spring	0.088	0.31	0
Summer	0.099	0.39	0
Fall	0.322	1.08	10
Winter	0.374	1.57	4
Max/Total	0.374	1.57	14

Reference:

United States Department of Agriculture (USDA), 2002. Air Quality Issues in the Columbia River Gorge National Scenic Area. USDA FS, Region 6, Air Resource Management Staff. http://www.fs.fed.us/r6/aq/gorgis.pdf

conservative nature of this analysis, the PGF's contribution to cumulative visibility degradation in the CRGNSA is not likely to be significant. The PGF would implement the best available emissions control technology, which minimizes potential impacts to air quality and visibility.

RESPONSE TO COMMENT A-2

The PGF has adopted all applicable and economically feasible control technologies and is in compliance with all regulatory requirements for criteria pollutants and air toxics. Because these technologies serve to mitigate the potential air quality impacts of the proposed project to the greatest extent feasible, BPA and Benton County believe that they have considered all reasonable mitigation for the potential impacts of the proposed project. As indicated by the commentor, neither the Clean Air Act nor the State permitting rules provide measures to require additional mitigation to offset power plants' contributions to air quality problems in the Gorge. The BPA has no statutory obligation to impose additional mitigation to offset visibility impacts, and does not believe that it is necessary for the PGF.

Further, USFS studies indicating acid deposition, ecosystem disturbance, and cultural resource issues in the CRGNSA are acknowledged. However, no studies confirm the degree to which sources in the Columbia plateau are responsible for impacts in the CRGNSA. Requesting emission reductions from power plants (especially for gas-fired power plants such as PGF) is premature when it cannot be demonstrated that such emission reductions would have a noticeable benefit to the CRGNSA. Another approach would be to require new sources to implement the best available emission control technology and to demonstrate that the resulting emissions would not result in a significant increase in ambient air concentrations of pollutants. If scientifically sound studies demonstrate that emissions from the Columbia Basin (as opposed to the Vancouver/Portland metropolitan area) are responsible for air quality problems in the CRGNSA and that power plants are a primary contributor to the problem, power plant emission reductions could be considered.

The CALPUFF simulations of PGF emissions were used to evaluate total sulfur and nitrogen (which includes nitrogen present as background ammonium) deposition. The results are presented in Table A-2-1, which has been added as Table 3.2-8 of the EIS. The maximum total deposition (including both wet and dry deposition) attributable to PGF in the CRGNSA was estimated to be 0.00029 kg/ha/yr for sulfur and 0.00018 kg/ha/yr for nitrogen.

The USFS has indicated that total deposition of less than 3 kg/ha/yr for sulfur and 5 kg/ha/yr for nitrogen are unlikely to significantly affect terrestrial ecosystems in the Pacific Northwest forests.[3] The Washington Department of Ecology (Ecology) has further identified a value of 0.2 percent of these total deposition values as an indicator of "significance" for a single project (analogous to the Significant Impact Levels (SILs) established by the Environmental Protection Agency (EPA) for criteria

[3] Peterson, J. et al. 1992: *Guidelines for Evaluating Air Pollution Impacts on Class I Areas in the Pacific Northwest*. USDA Forest Service. General Technical Report PNW-GTR-299, May, 1992.

pollutants). As shown in Table A-2-1, the impacts attributable to PGF are tiny fractions of existing deposition levels in the CRGNSA and the USFS recommended cumulative deposition criteria, and less than 7 percent of the Ecology significance levels. It is very unlikely that pollutants from PGF would significantly impact the ecosystem.

Table A-2-1
Annual Total Deposition Analysis Results

	Annual SulfurDeposition (kg/ha/yr)				Annual Nitrogen Deposition (kg/ha/yr)			
Area	Back-ground	PGF	Total	Change (%)	Back-ground	PGF	Total	Change (%)
Diamond Peak Wilderness	4.000	0.00006	4.000	0.001	2.200	0.00003	2.200	0.002
Three Sisters Wilderness	5.600	0.00023	5.600	0.004	3.600	0.00015	3.600	0.004
Mt. Jefferson Wilderness	4.000	0.00023	4.000	0.006	1.800	0.00015	1.800	0.009
Strawberry Mtn. Wilderness	1.400	0.00010	1.400	0.007	1.200	0.00006	1.200	0.005
Mt. Hood Wilderness	8.600	0.00022	8.600	0.003	5.400	0.00013	5.400	0.002
CRGNSA	12.000	0.00029	12.000	0.002	10.000	0.00018	10.000	0.002
Eagle Cap Wilderness	1.600	0.00025	1.600	0.015	1.600	0.00016	1.600	0.010
Hells Canyon Wilderness	1.400	0.00027	1.400	0.019	1.200	0.00018	1.200	0.015
Mt. Adams Wilderness	10.800	0.00010	10.800	0.001	9.000	0.00006	9.000	0.001
Goat Rocks Wilderness	11.800	0.00008	11.800	0.001	9.000	0.00005	9.000	0.001
Mt. Rainier National Park	3.100	0.00005	3.100	0.002	2.400	0.00004	2.400	0.002
Olympic National Park	5.600	0.00003	5.600	0.000	2.000	0.00002	2.000	0.001
Alpine Lakes Wilderness	7.200	0.00010	7.200	0.001	5.200	0.00008	5.200	0.002
Glacier Peak Wilderness	8.000	0.00007	8.000	0.001	5.800	0.00005	5.800	0.001
North Cascades National Park	3.500	0.00006	3.500	0.002	5.200	0.00004	5.200	0.001
Pasayten Wilderness	7.200	0.00011	7.200	0.002	5.200	0.00009	5.200	0.002
Mt. Baker Wilderness	No Data	0.00005			No Data	0.00003		
Spokane Indian Reservation	No Data	0.00041			No Data	0.00026		
Maximum		0.00041	12	0.019		0.00018	10	0.015
USFS Criteria			3.000				5.000	
Ecology single-project significance level		0.006				0.010		

It would be very beneficial if our agencies along with the Environmental Protection Agency, could come to grips with this issue in a holistic, all encompassing agreement that embraces this issue for the future. We appreciate the opportunity to comment and look forward to working collaboratively with you toward a mutually agreeable solution.

Sincerely,

/s/ *Calvin N. Joyner*
CALVIN N. JOYNER
Director, Natural Resources

Enclosures

cc:
EPA Region 10
NPS Lakewood, Co
Yakama Tribe
Benton County Planning Department
P.O. Box 910
Prosser, WA 99350

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Enclosure

Plymouth Generating Facility
Specific comments.

1. Page 1-10. Section 1.8.2 Local and Regional Cumulative Impacts
The paragraph dealing with Air Quality states in part: "...Both cumulative air quality and regional haze evaluations found that the PGF would not contribute to significant cumulative impacts...." As we have stated in the cover letter and in several prior communications this is not true. Cumulative effects are occurring from existing transmission grid sources – adding new sources without mitigation continues to exacerbate this problem. A-3

2. Page 3.2-3. Section 3.2.1.2 The air quality analysis presented is based on five years of meteorology from the Pendleton Airport. Because of complex terrain around Pendleton and the effect of the Columbia River at Plymouth there is very likely little relationship between the surface or boundary layer meteorological conditions at these two locations, which renders any conclusions made from this data questionable. On site meteorology from other energy facilities or the Umatilla Depot along the river in the Plymouth vicinity is almost certainly available. A-4

3. Page 3.2-18 & 19. Section 3.2.3 It is recognized in this paragraph that a cumulative effect air quality analysis, including both existing and proposed energy facilities is needed to assess local ambient pollutant concentrations. Yet this same logic is not applied in the visibility analysis. In a later paragraph in this section the assertion is made that the visibility analysis that was done "significantly overstates potential impacts from power generation." This is a very misleading and incorrect statement. The existing sources were not included – the Boardman Coal Plants emissions alone exceed the emissions from all the proposed sources combined. Many of the existing gas fired facilities in this vicinity were built with less efficient emission control technology than is used today – omitting these sources further biases the visibility analysis on the low side. A-5

3. Page 3.2-19. Fourth para. The logic in this paragraph reflects bias and a lack of objectivity. This is a NEPA document where potential environmental impacts are to be revealed. The incomplete emission inventory used and the inherent limitations of air quality models are such that it is much more likely that this visibility analysis under predicted impacts. As an example the sizable volatile organic compounds emitted by all these facilities are not included in visibility analyses, but they are nevertheless significant contributors to visibility impairment. It would be better if this paragraph were removed -- convincing counter arguments can be made for every point in this paragraph. A-6

4. Page 3.14-7. Table 2.14-2 Potential Cumulative Impacts
Item 1 Goldendale Energy Project – there is no doubt this facility will contribute to a cumulative visibility impact in the CRGNSA. The table indicates cumulative impact is unlikely. A-7

5. Appendix B2 Regional Haze Analysis
In the second to last paragraph there is a discussion similar to that in item 3 above. The wintertime acid deposition problem in the Gorge is not recognized in this EIS. A-8

RESPONSE TO COMMENT A-3

The sentence summarizing cumulative air quality impacts was not worded precisely, and is corrected both in Chapter I of this Final EIS, and in Chapter II, Errata to the Draft EIS. Rather than imply that no air quality impacts exist in the CRGNSA, the summary paragraph should have indicated the PGF would not significantly contribute to any air quality impacts in the CRGNSA. Furthermore, the paragraph should have referred to Class I areas rather than Class A areas. See also Response to Comments A-1, A-2, and I-16.

RESPONSE TO COMMENT A-4

The Benton Clean Air Authority recommended that meteorological data from Pendleton Airport is used in the local air quality evaluation summarized in the Draft EIS. In response to this comment, five years of hourly meteorological data (1996-2000) were obtained from a monitoring station operated by the Umatilla Army Depot outside of Umatilla, Oregon. These data were combined with twice-daily mixing heights from the Spokane Airport. Those meteorological data were formatted for use in the ISCST3 dispersion model that was previously applied for the air quality permit application and the Draft EIS air quality assessment.

Use of the Umatilla meteorological data, instead of the Pendleton airport data, did not significantly change the modeling results. Revised versions of Tables 3.2-5 and 3.2-6 from the Draft EIS are presented below as Tables A-4-1 and A-4-2. The modeling analysis based on the alternative meteorological data resulted in lower 1-hour average and annual average pollutant concentrations, but higher predicted 3-hour, 8-hour, and 24-hour average pollutant concentrations. While none of these concentrations exceed ambient air quality standards, predicted 24-hour average concentrations of SO_2 and PM_{10} using UAD data slightly exceed the SILs. However, these SIL exceedances are not considered indicative of a significant air quality impact because the predicted amount of exceedance is minimal, the conservative modeling approach likely overestimates predicted concentrations, the SILs are only initial threshold screening criteria, and the predicted 24-hour average SO_2 and PM_{10}

concentrations are small fractions of the ambient standards. Similarly, predicted annual average concentrations of toxic air pollutants (TAPs) decreased using the Umatilla meteorological data, but predicted 24-hour average concentrations increased. Table A-4-2 demonstrates that predicted TAP concentrations attributable to PGF comply with all applicable Acceptable Source Impact Levels.

Table A-4-1 (Revised Table 3.2-5 in the Draft EIS)
Maximum Criteria Pollutant Predictions

Pollutant	Averaging Period	Maximum PGF Concentration (µg/m3)	More Stringent of NAAQS or WAAQS (µg/m3)	SIL (µg/m3)
NO_2 [(a)]	Annual	0.85	100	1
SO_2	1-Hour	26	1,000	(b)
	3-Hour	19	1,300	25
	24-Hour	8.6	365	5
	Annual	0.14	80	1
CO	1-Hour	113	40,000	2,000
	8-Hour	62	10,000	500
PM_{10}	24-Hour	5.3	150	5
	Annual	0.32	50	1

[(a)] Assumes 100 percent conversion of NOx to NO_2

[(a)] A SIL has not been established for 1-hour SO_2

Table A-4-2 (Revised Table 3.2-6 in the Draft EIS)
Maximum 24-Hour and Annual Toxic Air Pollutant Concentrations

Compound	Averaging Period	Concentrations Attributable to Each Source: HRSG Stack	Standby Generator	Fire Pump	Combined Concentration (µg/m³)	ASIL (µg/m³)	Over ASIL?[a]
1,3-Butadiene	Annual	1.4E-05	0	0	0.00001	0.0036	No
Acetaldehyde	Annual	1.3E-03	5.5E-06	3.4E-06	0.001	0.45	No
Ammonia	24-Hour	4.4	0	0	4.4	100	No
Arsenic	Annual	1.1E-06	0	0	0.000001	0.00023	No
Benzene	Annual	4.1E-04	1.7E-04	1.0E-04	0.0007	0.12	No
Benzo(a)pyrene	Annual	6.8E-09	0	0	0.00000001	0.00048	No
Beryllium	Annual	6.8E-08	0	0	0.0000001	0.00042	No
Cadmium	Annual	6.2E-06	0	0	0.000006	0.00056	No
Chromium VI	Annual	3.9E-06	0	0	0.000004	0.000083	No
Formaldehyde	Annual	2.4E-02	1.7E-05	1.1E-05	0.02	0.077	No
Lead	Annual	2.8E-06	0	0	0.000003	0.5	No
Nickel	Annual	1.2E-05	0	0	0.000012	0.0021	No
Nitric Oxide	24-Hour	4.8	5.1	4.3	14	100	No
PAH	Annual	7.3E-05	9.8E-07	6.0E-07	0.00007	0.00048	No
Propylene Oxide	Annual	9.6E-04	0	0	0.001	0.27	No
Sulfuric Acid	24-Hour	0.454	0	0	0.5	3.3	No

[a] ASILs = Acceptable Source Impact Levels

Thus, model results based on both sets of meteorological data indicate emissions from PGF would have a negligible impact on local air pollutant concentrations.

RESPONSE TO COMMENT A-5

See Response to Comment A-1.

RESPONSE TO COMMENT A-6

The opinion of the commentor is noted. However, BPA and Benton County believe that the referenced paragraph accurately describes possible overestimation of visibility impacts. Regarding volatile organic compounds (VOCs), the extent to which emissions of VOCs contribute to visibility degradation remains a topic of research and disagreement. However, in response to this comment MFG reexamined the visibility assessment using the conservative assumption that all VOCs emitted by PGF are instantly converted to secondary organic aerosols. Using this assumption, the maximum reduction in visibility in the CRGNSA attributable to PGF would increase from 1.57 to 2.32 percent, which remains well below the 5-percent FLAG criterion established for individual sources. Using this assumption, the number of days when PGF emissions could affect visibility by more than the 0.4 percent FLAG criterion for cumulative impacts increased from 14 to 17 (Table A-6-1).

Table A-6-1
CRGNSA Haze Impacts Attributable to PGF
Assuming All VOC Emissions Form Secondary Aerosols

	Maximum Extinction Attributable to PGF (1/Mm)	Maximum Change in Extinction (%)	Number of Days With Significant Change in Extinction
Spring	0.121	0.43	0
Summer	0.138	0.54	1
Fall	0.394	1.30	10
Winter	0.535	2.32	6
Max/Total	0.535	2.32	17

Several conservative assumptions contribute to this result:

- All VOCs are instantly converted to secondary organic aerosols
- Visibility in the CRGNSA is degraded by existing sources more that 10 percent for every day of the year
- Background aerosol concentrations in the CRGNSA represent excellent visual conditions for the calculation of the background scattering coefficient (approximately the 90th percentile best visibility)
- No weather phenomena (such as fog) are present that obscure the affects of the predicted change to the extinction coefficient
- The predicted extinction coefficient is applicable to the entire visual path length from observer to target
- Good visibility in the CRGNSA is equally important for all days and hours of the years
- The PGF emits at its maximum permitted emission rates for all hours of the year

This series of conservative assumptions result in exaggerated indication of potential regional haze impacts in the CRGNSA.

RESPONSE TO COMMENT A-7

The commentor disagrees with the notation in Table 3.14-2 in the Draft EIS (Potential Cumulative Impacts) that states in part that cumulative impacts would be unlikely. Table 3.14-2 summarizes the findings of an evaluation of the potential for other projects to impose cumulative impacts in the PGF project area, and the potential for the PGF and other projects to cumulatively affect locations throughout the regional area. This evaluation resulted in the conclusion that the approximately 70 miles separating the PGF and Goldendale, the volume of emissions (both plants are approximately the same size and technology) and the diffusion of the stack plume over the distance would make it unlikely that criteria pollutants would concentrate and cause cumulative impacts.

Acid deposition, sulfur and nitrate deposition are the cause of the ecosystem disturbance and cultural resource concerns. The periods deposition rates are at a maximum are those days the author in this paragraph is dismissing as unimportant for regional haze. The air quality models used for regional haze do a very poor job of estimating deposition rates. Fine particulate formation occurs rapidly under the circumstances described by the author – on the days such as this when the clouds dissipate in late morning (a very common occurrence) some of the worst visibility or haze conditions that are recorded occur in the afternoon. It is for these reasons that attempts to rationalize these impacts as unimportant are not justified.

A-9

A-10

Further modeling analysis of the PGF using CALPUFF indicated that PGF emissions, when transported to the Goldendale area, would be *de minimus*. If the PGF air quality impacts were *de minimus* at Goldendale, which lies north of the Columbia Gorge, cumulative impacts would not likely occur further to the east and south in the Gorge based on the relative location of the PGF.

RESPONSE TO COMMENT A-8

See Response to Comment A-2.

RESPONSE TO COMMENT A-9

The air quality models used in the Draft EIS to analyze regional haze are those recommended by Federal Land Managers (FLMs) (including those from the USFS) in the FLAG2 guidance document for assessing acid deposition to Class I areas. The FLMs consider these models to be the best tools available for assessing deposition rates. As in any modeling analysis or measurement program, some uncertainty exists in the estimation of deposition rates. In order to address this uncertainty, the FLAG2 modeling techniques and the USFS-recommended criteria for deposition include a degree of conservatism. Using the FLAG2 procedures, predicted deposition rates in the CRGNSA are tiny fractions of existing deposition rates and of the USFS-recommended criteria (see Table A-2-1). Such small incremental increases in the deposition of sulfur or nitrogen are not likely to significantly affect resources within the CRGNSA. See also Response to Comment A-2.

RESPONSE TO COMMENT A-10

The Draft EIS's regional haze assessment follows protocols developed by the FLMs and uses the FLAG criteria they have established. The assessment uses a year's worth of meteorological data (relative humidity, wind direction and speed, etc.), which includes data from days in which clouds dissipate during the late morning. Although these meteorological conditions are taken into account in predicting the potential effect of PGF emissions on extinction coefficient, the analysis conservatively

assumes that the background visibility is excellent during all hours of the day and night and during all weather conditions. In other words, the assessment overstates the project's potential effect by assuming that a 5 percent change in extinction coefficient would result in a perceptible degradation of visibility, even if that change occurred at night or when clouds obscure scenic vistas.

Potential cumulative air quality impacts, including potential visibility degradation, are discussed in Section 3.2.3 of the Draft EIS and in Appendix B of the Draft EIS. This discussion focuses on the potential cumulative effect of the proposed project in combination with other potential power plants that could be developed in the region because the combined effect of power plant emissions has been identified as a primary area of concern by the public. In addition, the regional air quality modeling performed by BPA that is discussed in the Draft EIS was performed independently of the Draft EIS process for any particular potential power plant, and was intended to focus on the cumulative impacts of the potential plants rather than other sources.

As discussed on page 3.2-19 of the Draft EIS, the cumulative modeling done for the potential power plant likely significantly overestimates visibility impacts. Nonetheless, the cumulative effect of these plants would be potentially significant only one day per year.

Air emissions from other, non-power plant sources could also contribute to visibility degradation at the CRGNSA and Mount Hood. While emissions from other sources (both past and existing) were included in the background for cumulative air quality modeling and thus are sufficiently accounted for, potential contributions from future non-power plant sources were not included in the modeling. The following has been added as the second-to-last sentence of the last paragraph on page 3.2-19 of the Draft EIS:

> *"In addition to potential power plants, there are several other future sources in the region that could generate air emission and contribute to visibility degradation at the CRGNSA and Mount Hood if developed. For a list of these potential non-power plant sources of air emissions, please see Table 3.14-1. These sources may add to the projected cumulative impact of the potential power plants in the region."*

BPA and Benton County believe that the Draft EIS provides sufficient information concerning potential cumulative impacts in adequate detail to allow decision-makers and the public to understand these potential impacts, and that the analysis of these potential impacts conforms to the requirements of applicable NEPA regulations.

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
500 NE Multnomah Street, Suite 356
Portland, Oregon 97232-2036

IN REPLY REFER TO:

October 21, 2002

ER 02/875

Philip W. Smith
Bonneville Power Administration
P.O. Box 3621 KEC-4
905 NE 11th
Portland, Oregon 92708-3621

Dear Mr. Smith:

The Department of the Interior has reviewed the Draft Environmental Impact Statement (DEIS) for the Plymouth Generating Facility, Benton County, Washington. The Department does not have any comments to offer. A-11

We appreciated the opportunity to comment.

Sincerely,

Preston A. Sleeger
Regional Environmental Officer

RESPONSE TO COMMENT A-11

Comment acknowledged.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Printed on Recycled Paper

October 15, 2002

Reply To
Attn Of: ECO-088

Ref: 02-003-BPA

Philip Smith
Bonneville Power Administration
P.O. Box 3621 (KEC-4)
Portland, OR 97208-2631

Dear Mr. Smith:

The Environmental Protection Agency (EPA) has completed its review of the draft Environmental Impact Statement (EIS) for the proposed **Plymouth Generating Facility** (CEQ No. 020365) in accordance with our authorities and responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The draft EIS has been prepared to respond to a proposal to construct and operate a natural gas-fired power plant in Benton County, Washington and to distribute the generated power over the Federal Columbia River Transmission System. The EIS evaluates the applicant's proposed power plant and two transmission line alignments along with the No Action alternative. An agency-preferred alternative is not identified.

Based on our review and evaluation, we have assigned a rating of EC-2 (Environmental Concerns - Insufficient Information) to the draft EIS. This rating, and a summary of our comments, will be published in the *Federal Register*. A copy of the rating system used in conducting our review is enclosed for your reference.

Our concerns with the proposed project relate to its predicted contribution to cumulative visibility degradation in the Columbia River Gorge National Scenic Area (CRGNSA) and at Mount Hood. While the EIS indicates that project-specific air emissions alone would not cause perceptible visibility impacts in the CRGNSA (or national parks and wilderness areas in the region), modeling analyses reveal that combined emissions from fifteen (15) proposed gas-fired power plants (including the Plymouth Generation Facility) would result in significant visibility effects in the CRGNSA and at Mount Hood. We note that the modeling conducted does not reflect contributions from existing or reasonably foreseeable new (non-power generating) air sources. As a result, we are concerned that the overall cumulative visibility effects would likely

A-12

RESPONSE TO COMMENT A-12

As described in Response to Comments A-1 and A-10 above, a comprehensive analysis of cumulative effects on visibility in the CRGNSA was performed. The analysis performed is consistent with the requirements of 40 C.F.R. 1502.16, and the Council of Environmental Quality document *Considering Cumulative Effects*.

The comment correctly acknowledges that the modeling analysis demonstrates that the PGF would not cause perceptible visibility impacts in the CRGNSA. However, the comment is incorrect in stating that the modeling revealed that the cumulative effect of emissions 15 proposed gas-fired plans would be a significant adverse change in visibility. As explained in response to Comment A-1 above, the modeling indicated that visibility in the CRGNSA would be affected, at most, 7 days a year. As explained, however, the conservative nature of the modeling significantly overstates the likely effect. The impacts predicted by this analysis are also overstated as a result of subsequent events indicating that several of the potential future sources considered in the modeling analysis are no longer appear reasonably likely to be constructed.

The comment also criticizes the EIS for not including all existing sources of air emissions in the modeling. This comment misunderstands the purpose of the modeling. It is acknowledged that there are currently some days in which visibility is impaired in the CRGNSA. Those existing conditions are common to the project and no-action alternatives. The modeling was designed to indicate to what extent the PGF and other reasonably likely future sources would create further visibility impairment. Rather than include all existing emission sources in the modeling, the analysis conservatively assumed excellent visibility occurred every day of the year (as if existing sources never affect visibility), and then determined the effect of the potential future sources. This method of analysis overstates the cumulative effect of future sources because the visibility may already be impaired (due either to natural meterological conditions or to existing emissions sources) on the day or days in which the modeling shows an impact. In the agency's judgment, this is best way to evaluate potential cumulative impacts.

be more significant than reported because the analyses conducted to date do not reflect a complete cumulative effects assessment reflecting the contributions of all past, present and reasonably foreseeable sources. We recommend that the EIS be revised to include a comprehensive cumulative air quality analysis that is consistent with the implementing regulations for NEPA (see 40 CFR 1502.16). We also recommend consulting *Considering Cumulative Effects* Environmental Quality in 1997 in furthering the development of the cumulative effects analysis for this EIS.

A-12 (cont.)

Thank you for the opportunity to provide comments on the draft EIS. I urge you to contact Bill Ryan of my staff at (206) 553-8561 at your earliest opportunity to discuss our comments and how they might best be addressed in the EIS.

Sincerely,

/s/

Judith Leckrone Lee, Manager
Geographic Unit

Enclosure

cc: Mike Shuttleworth, Benton County Planning

The comment also criticized the EIS for not including all potential future non-power generating sources in the modeling. It would be too costly and time-consuming to include every possible emission source in the model. BPA, therefore, made a reasonable decision to focus on proposed power projects that would result in significant emission in the area. The comment does not identify any particular non-power source that should have been included in the modeling, or explain why any such source would be so significant that it would result in a material difference in the results of the analysis.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections

The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

CONFEDERATED TRIBES
of the
Umatilla Indian Reservation
Department of Natural Resources
CULTURAL RESOURCES
PROTECTION PROGRAM
P.O. Box 638
73239 Confederated Way
Pendleton, Oregon 97801
Area code 541 Phone 276-3629 FAX 276-1966

October 3, 2002

Philip W. Smith
Environmental Project Manager
Bonneville Power Administration
Post Office Box 3621
Portland, Oregon 97208-3621

Dear Mr. Smith:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Cultural Resources Protection Program (CRPP) thanks you for the opportunity to review the draft environmental impact statement for the Plymouth Generating Facility. We have serious problems with this report.

On page 3.10-2 URS states, "A literature review and records search was completed for the site area at the Washington State Office of Archaeology and Historic Preservation in Olympia, Washington, on December 13, 2001. The record search included review of ethnographic and historic literature and maps; federal, state, and local inventories of historic properties; archaeological base maps and site records; and survey reports. The record search revealed that no archaeological sites have been identified within the site area. It also indicated, however, that no archaeological survey has been reported in the vicinity of the site area. Informal reports note the presence of prehistoric materials on the island in the Columbia River offshore of the community of Plymouth, well outside of the plant site, but these have not been confirmed."

It is hard to know where to start to respond to this paragraph; it contains many false statements. A hasty review of our records indicates there are approximately 17 cultural resource sites within one mile of the proposed plant site alone. This does not even consider the plant's associated infrastructure. These 17 sites do not include the 11 or 12 (depending on whether one includes Little Plymouth Island) cultural resource sites recorded on "the island in the Columbia River offshore of the community of Plymouth." In addition, at least 10 different cultural resource reports consider the sites on Plymouth Island; many of them have been test excavated. I do not know what URS means by "confirmed" sites, but we consider a site to exist when the Washington Office of Archaeology and Historic Preservation (OAHP) has assigned a site number to it. A-13

It is our sincere hope that URS mistakenly did not report these sites, although it is beyond our comprehension how such an oversight could take place. These sites are clearly indicated on OAHP maps. Such an error could have led to disturbance in this area with no further cultural resource work. The CRPP believes that subsurface testing of the project area and appropriate associated infrastructure are required in this area because there is such a high density of cultural resources. A-14

RESPONSE TO COMMENT A-13

Comment noted. The referenced paragraph has been revised to include information about the cultural resource sites identified by the commentor. (See Chapter II of this FEIS.)

RESPONSE TO COMMENT A-14

BPA and Benton County believe that sufficient investigative fieldwork to identify potential cultural resources has been conducted at this time. Although development of the proposed project would not be expected to affect known cultural resources, potential impacts to undiscovered cultural resources is acknowledged, and appropriate mitigation is provided. As stated in Section 3.10.3, Summary of Impacts, and 3.10.4, Mitigation Measures, of the EIS,

> *"...if recorded archaeological resources present within the Alternate Transmission Interconnection corridor are determined significant and will be impacted, or if previously unidentified archaeological materials or features were to be discovered during construction or ground-disturbing activities and the discovery were to be determined significant, mitigation will be necessary. The Washington State Office of Archaeological and Historic Preservation would determine appropriate mitigation."*

Finally, page 3.10-5 contains the statement, "The Plateau was characterized by Kroeber (1939) as a region of 'absences and low intensity culture,' particularly when compared to the more highly developed cultures represented on the Northwest Coast and Plains." The CTUIR strongly resents the implication that it has a less than fully developed culture. A-15

We look forward to reviewing the cultural resource survey report and anticipate hearing from the BPA regarding a subsurface cultural resource testing project.

Respectfully,

Jeff Van Pelt
Program Manager

cc: Johnson Meninick, Yakama Nation
Bill White, Yakama Nation
Scott Williams, Assistant State Archaeologist, BPA Liaison
Valerie Hauser, Advisory Council on Historic Preservation
Stephen Tromly, Bonneville Power Administration

RESPONSE TO COMMENT A-15

The implication noted in the comment was not intended. The statement to which the commentor refers has been revised. (See Chapter II of this FEIS.)

CONFEDERATED TRIBES
of the
Umatilla Indian Reservation
Department of Natural Resources
CULTURAL RESOURCES
PROTECTION PROGRAM
P.O. Box 638
73239 Confederated Way
Pendleton, Oregon 97801
Area code 541 Phone 276-3629 FAX 276-1966

November 18, 2002

Philip W. Smith
Environmental Project Manager
Bonneville Power Administration
Post Office Box 3621
Portland, Oregon 97208-3621

Dear Mr. Smith:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Cultural Resources Protection Program (CRPP) thanks you for the opportunity to review Michael S. Kelly of URS' *Cultural Resources Inventory of the Proposed Plymouth Generating Facility, Benton County, Washington*. We appreciate the changes that URS made in response to our comments regarding the draft environmental impact statement. However, we still have some problems with the report.

On page 19 Kelly lists previously identified sites in the project vicinity. We find that this list lacks site 45BN345. Site 45BN345 was recorded by David Ellis working for the U.S. Army Corps of Engineers, Portland District, in September 1983. It is the Spokane, Portland, and Seattle railroad grade, near Christy Road. That same list of sites on page 19 indicates the distance from the site to "project alternative." I found this portion of the table somewhat misleading. For example, site 45BN295 is listed as 1800 meters from the project alternative, but according to my maps it is right next to the Access Alternative. A-16

Kelly does not provide a map showing where URS surveyed. There is a description and an aerial photograph, but a map would be easier to follow. A few reports should have been referred to as part of this project. I am assuming that the McNary-John Day transmission line survey passed near the project area, especially the transmission interconnection. Heritage Research Associates, Inc. (HRA) prepared *Results of a Cultural Resources Assessment for the Northwest Pipeline Corporation Expansion I Project Washington Facilities* in 1994. A review of the site forms in Volume II of this document indicates that HRA undertook some subsurface testing at 45BN285 and that the 420 acre Port of Benton tract, which seems to be within the Plymouth Generating Facility project area, was formally determined eligible for inclusion in the National Register of Historic Places on June 19, 1981. In addition, there is no mention of Gordon Lothson and Glen Lindemans's 1980 *Cultural Resource Reconnaissance and Phase II Testing for the Port of Benton, Near Plymouth, Washington* report. I believe that to better understand the cultural resources of the area, these reports must be reviewed and, based on them, perhaps an informed decision about the likelihood of finding subsurface cultural resources in the plant area could be made. Until a reasoned argument regarding the relationship of the portions of the project area that are at a distance from the Columbia River to the sites along the river is made, we believe that subsurface testing in at least the plant area will be required. A-17 A-18 A-19

RESPONSE TO COMMENT A-16

The record of site 45BN345 has been added to the cultural resources inventory for this project. See Chapter II of this Final EIS. Specifically, the distance from Site 45BN295 to the project alternative has been corrected to 180 feet, not 1,800 feet.

RESPONSE TO COMMENT A-17

A map of sites is included with the revised Cultural Resources Report for the PGF, which was submitted to the Confederated Tribes of the Umatilla Indian Reservation in January 2003.

RESPONSE TO COMMENT A-18

These two reports have been consulted. See Chapter II of this Final EIS.

RESPONSE TO COMMENT A-19

Although no prehistoric archaeological materials were noted during inventory of project areas, the ground surface across much of the area investigated is highly disturbed and may have masked the presence of archaeological materials. Therefore, this area should be considered sensitive and may contain unidentified archaeological sites. Following identification of selected alternatives, additional archaeological investigation is recommended. Specifically, probing to test for buried deposits, prior to the initiation of construction, as well as monitoring during construction, are recommended. Archaeological materials identified during probing activities should be subject to additional testing and evaluation, followed by mitigation, if appropriate. See Chapter II of this FEIS for further information.

I understand that the BPA did not prepare this report. However, it took a considerable amount of my time to review the report and identify its deficiencies. Because this area is important to the tribe, we undertook this work; however, I hope that in the future your contractors will be more thorough.

Respectfully,

Catherine E. Dickson

Catherine E. Dickson
Principal Investigator

cc: Jeff Van Pelt, CRPP Manager
Johnson Meninick, Yakama Nation
Bill White, Yakama Nation
Scott Williams, Assistant State Archaeologist, BPA Liaison
Valerie Hauser, Advisory Council on Historic Preservation
Stephen Tromly, Bonneville Power Administration

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
15 West Yakima Avenue, Suite 200 • Yakima, Washington 98902-3452 • (509) 575-2490

October 14, 2002

RECEIVED
OCT 15 2002
BENTON COUNTY
PLANNING DEPARTMENT

Terry Marden
Benton County Planning
PO Box 910
Prosser, WA 99350-0910

Dear Mr. Marden:

Thank you for the opportunity to comment on the Plymouth Generating Facility draft environmental impact statement (DEIS). We have reviewed the document and have the following comments.

Water Quality

The salts concentrated in the cooling loop will require a State of Washington Wastewater Discharge Permit and monitoring of the irrigated farmland will be necessary to ensure compliance with Washington State ground water standards. A wastewater discharge permit application can be obtained and returned to the Central Regional Office of the Dept. of Ecology. Please contact Cindy Huwe at (509) 457-7105 for the permit application.

If you have any questions concerning the Water Quality comments, please contact Pat Irle at (509) 454-7864.

Sincerely,

Gwen Clear

Gwen Clear
Environmental Review Coordinator
Central Regional Office
(509) 575-2012

818

A-20

RESPONSE TO COMMENT A-20

Comment acknowledged. Please note that the requirement for this permit is listed in Table 5-1 Plymouth Energy Project Permits and Approvals of this Final EIS.

Washington State
Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

South Central Region
2809 Rudkin Road, Union Gap
P.O. Box 12560
Yakima, WA 98909-2560

509-577-1600
TTY: 1-800-833-6388
www.wsdot.wa.gov

October 17, 2002

Benton County Planning/Building Department
P. O. Box 910
Prosser, WA 99350-0910

Attention: Michael Shuttleworth, Senior Planner

Subject: CUP 01-45, Plymouth Energy, LLC; 306 MW Generation Facility
Draft Environmental Impact Statement (DEIS) Comments
SR 14, MP 173.88 – 179.96 (Christy Road to Plymouth Road) Right

We have reviewed the referenced Draft Environmental Impact Statement (DEIS), and have the following comments.

1. The project is not adjacent to any state-maintained rights-of-way, but State Highway 14 is in the project vicinity. The applicant identified SR 14 as providing indirect access to the site for both construction and operation of the proposed facility. SR 14 is a partially-controlled limited access facility. The Washington State Department of Transportation (WSDOT) has acquired all the access rights to the highway with the exception of deeded approaches.

   Access to SR 14 from the site is proposed via Plymouth Industrial Road. The SR 14/Plymouth Industrial Road intersection (mp 178.90) is unchannelized, and the posted speed limit is 65 miles per hour. Alternative access to the site would connect to SR 14 via Christy Road or Plymouth Road. The SR 14/Christy Road intersection (mp 173.88) is also unchannelized, and the posted speed limit is 65 miles per hour. The SR 14/Plymouth Road intersection (mp 179.96) is likewise unchannelized, and the posted speed limit is 55 miles per hour. Any of these proposed accesses are acceptable to us. No direct access to SR 14 from the site will be allowed. A-21

2. Doug Eldred, a WSDOT employee, is cited as a reference on pages 3.11-5 and 3.11-19. His last name is misspelled. A-22

3. It is the applicant's responsibility to keep and maintain SR 14 free of any debris or hazardous material. Any spilled material shall be cleaned up at the applicant's expense. A-23

4. All loads transported on WSDOT rights-of-way must be within the legal size and load limits, or have a valid oversize and/or overweight permit.

RESPONSE TO COMMENT A-21

Comment acknowledged.

RESPONSE TO COMMENT A-22

Comment acknowledged. This misspelling has been corrected in Chapter II of this Final EIS.

RESPONSE TO COMMENT A-23

Comment acknowledged.

5. For any traffic control needed on SR 14, the proponent must submit a traffic control plan to the WSDOT South Central Region Traffic Office for review and approval. Please contact Rick Gifford at (509) 577-1985 for specifics.

   Traffic control on SR 14 should be coordinated with our Area Maintenance Superintendent, Tom Root. He can be reached at (509) 577-1933 in Pasco.

6. Any outdoor advertising or motorist signing for this project will need to comply with state criteria. As above, please contact Rick Gifford at (509) 577-1985 for specifics.

7. The applicant has indicated they will promote rideshare and vanpool programs for construction workers during the seven-month construction period. WSDOT would like to encourage these efforts, and is willing to assist the applicant with their trip reduction plans. The applicant can contact the South Central Region's Commute Trip Reduction Coordinator, Jeff Sommerville, at (509) 577-1632 for assistance.

Thank you for the opportunity to review and comment on this proposed project. If you have any questions concerning our comments, please contact Rick Holmstrom at (509) 577-1633.

Sincerely,

W. Brian White, P.E.
Acting Regional Planning Engineer

WBW: rh/jjg

cc: File #5, Benton County
Tom Root, Area 3 Maintenance Superintendent
Rick Gifford, Traffic Engineer
Jeff Sommerville, Commute Trip Reduction Coordinator

p:\planning\devrev\sr14\ bentco_plymouth energy_deis.doc

A-23 (cont.)

A-24

RESPONSE TO COMMENT A-24

Comment acknowledged.

Ross B. Dunfee, P.E.
Public Works Director / County Engineer
Steven L. Tonks, P.E.
Asst. Director/Asst. County Engineer

Benton County
Department of Public Works

Post Office Box 1001 - Courthouse
Prosser, Washington 99350-0954

Area Code 509
Prosser 786-5611
Tri-Cities 736-3084
Ext. 5664
Fax 786-5627

September 13, 2002

Mr. Terry A. Marden, Director
Benton County Planning & Building Department
P.O. Box 910
Prosser, WA 99350

RE: Draft EIS Plymouth Generating Facility

Dear Mr. Marden:

1. New road for Plymouth generating facility – The applicant does not state whether this is to be a public or private road. If it is to be a road owned and maintained by Benton County, it must be constructed in accordance with our standards and requirements. A-25

2. Upgrading existing Plymouth Industrial Road – This is to be coordinated with Benton County in accordance with our standards and requirements. A-26

3. Section 3.1.1.5 Access Alternative: If Christy Road is chosen as the preferred route, Benton County Public Works is to be contacted. It may be that the existing Christy Road would need to be upgraded if this route is chosen. The maps show two locations for the proposed connection to Christy Road. The actual location is to be determined an approved by Benton County prior to any construction. A-27

If you have any questions, please contact this office.

Sincerely,

Steven W. Becken
Project Engineer

RECEIVED
SEP 12
BENTON COUNTY
PLANNING DEPARTMENT

"BENTON COUNTY PUBLIC WORKS DEPARTMENT IS A DRUG FREE WORKPLACE AND AN EQUAL OPPORTUNITY EMPLOYER"

RESPONSE TO COMMENT A-25

Plymouth Industrial Road would be a private road. As described in Section 2.2.7 of the Draft EIS, the exiting Plymouth Industrial Road is a private road except for the first 900 feet of the roadway that adjoins State Route 14. The portion of Plymouth Industrial Road that would be extended to the Plymouth Generating Facility would also be a private road and would intersect the existing Plymouth Industrial Road at a point where the existing road is currently private.

RESPONSE TO COMMENT A-26

Comment acknowledged.

RESPONSE TO COMMENT A-27

Comment acknowledged.

"Mike Shuttleworth" <mike_shuttleworth@co.benton.wa.us>
12/18/02 02:38 PM

To: <pwsmith@bpa.gov>, <Katie_McKinstry@urscorp.com>
cc:
Subject: Fwd: Request to become party in Plymouth Power permits

----- Message from "Gerald Steel" <geraldsteel@yahoo.com> on Wed, 18 Dec 2002 14:11:05 -0800 -----

To: <mike_shuttleworth@co.benton.wa.us>

Subject Request to become party in Plymouth Power
: permits

Michael,

I represent the Central Washington Building & Construction Trades Council in their concerns regarding the Plymouth Power project. I understand that you are the correct contact for the following request but I would appreciate it if you would confirm this understanding or provide me with information as to who is the correct contact. I request that my client become a party (with me as the contact person) regarding all permits to be issued by Benton County that are associated with the Plymouth Power project. I request that I be given notice of all hearings and/or opportunities to comment and copies of all decisions. I also request a copy of the DEIS (with appendices) and a copy of the FEIS (with appendices) when it becomes available. Could you email me a list of all of the Benton County permits related to the Plymouth Power project that have been applied for with some estimate of when each permit might be issued and when any hearings might be held? Also, could you give me a list of other agencies (with a person's name and phone where available) where you know that other permits related to the Plymouth Power project either are being processed or likely will be processed? If you prefer that I make this request in a mailed letter, please let me know. I thank you for your assistance.

Gerald Steel, PE
Attorney-at-Law
2545 NE 95th St.
Seattle, WA 98115
Tel/Fax 206.529.8373

G-1

RESPONSE TO COMMENT G-1

A copy of the Draft EIS was mailed to the commentor, and the commentor was added to the Distribution List for the Final EIS.
A list of required permits is provided in Section 4.0 of the Draft EIS and Chapter II of the Final EIS.

Pacific Northwest Regional Council of Carpenters
KIRK E. DEAL
253 627-5122 Fax 253 627-5121
412 S. 13th St., Tacoma, WA. 98402

December 12, 2002

Mr. Mike Shuttleworth
Benton County Planning &Building Department
1002 Dudley Avenue
Prosser, WA 99350

Dear Sir:

I am contacting you with regards to the proposed Plymouth Generation Facility. Please have the applicant address the attached comments in the final EIS.

You will recall that I visited the Prosser Planning Office on July 11 to request a copy of the Draft Environmental Impact Statement. At that time I requested notification for the hearing related to the review of the Draft EIS and left my address for that purpose.

As I never received notification of the hearing, I acquired the Draft EIS upon returning to the Planning Office to enquire about the meeting after the comment period had closed.

Respectfully,

Kirk E. Deal

Kirk E. Deal

RECEIVED
DEC - 9 2002
BENTON COUNTY
PLANNING DEPARTMENT

RECEIVED
BENTON COUNTY
PLANNING DEPARTMENT

G-2

RESPONSE TO COMMENT G-2

Comment acknowledged. The commentor has been added to the Distribution List for the Final EIS.

Benton County Planning/Building Department
PO Box 910
1002 Dudley Avenue
Prosser, WA 99350

Re: **Comments/Questions** pertaining to the *Draft EIS* for **Plymouth Generation Facility**

Questions referencing the Draft Environmental Impact Study, Section 3.13.2.2.1: Socioeconomics, Construction.

(1)What is the basis for the applicant's projection of using a 65% local labor work force? G-3

(2)Will the applicant use local hiring halls within the county to achieve these projections for skilled construction craftspeople? G-4

Comments:

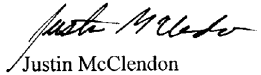
The DEIS projects that one third of the workforce will come from outside the area and used very general description of that employment resource: "weekly commuters".

A similar project in Hermiston recently hired one third of their workforce from outside of the three northwest states of Washington, Oregon and Idaho.

If these practices occur during the construction of a plant at Plymouth, wages will be exported outside the region at a time when this region is experiencing high unemployment.

Respectfully,

Kirk Deal
Pacific NW Regional Council of Carpenters
412 S. 13th St.
Tacoma, WA 98402



Justin McClendon
Pacific NW Reg. Council of Carpenters
2819 W Sylvester Ave
Pasco, WA 99302

RESPONSE TO COMMENT G-3

The DEIS states that approximately 65 percent of the construction worker positions would be filled from the local labor force (i.e., from Benton, Franklin and Umatilla counties). This percentage is based on prior experience of the Applicant on projects such as the actual construction of Sumas Energy 1 in Whatcom County (Martin 2002). The percentage applied to the PGF is likely conservative, because the PGF plant would be located closer to a large labor force (Tri-cities), compared to Sumas Energy 1. The local-worker percentage was assigned as 65 percent based on the following:

- labor availability within the local area (discussed in the DEIS and below) is adequate to meet demand by PGF construction;
- the assumption by the Applicant that a portion of the labor force would be highly specialized craftsmen who would originate from non-local areas; and
- the assumption by the Applicant that a portion of the labor would likely originate from outside the local area due to relatively longer commute times to which some construction workers are accustomed, due to the temporary nature of the work.

The Washington State Employment Security Department (WESD) indicates that in the two-county area of Benton and Franklin counties, almost 500 openings would exist on average per year between 3rd quarter 2001 and 3rd quarter 2003 in occupations that would be in demand by PGF construction. See Table G-3-1 below. Occupations in demand due to PGF construction are listed in Table 2-4 in the Draft EIS.

Table G-3-1
Two-Year Occupational Projections for
Benton-Franklin Workforce Development Area

Occupational Title	Employees 3rd Qtr 2001	Employees 3rd Qtr 2003	Avg. Annual Growth Rate	Avg. Annual Growth	Avg. Annual Total Openings
Construction managers	225	253	5.90%	14	17
Civil engineers	613	695	6.50%	41	50
Engineers, all other	282	296	2.60%	7	13
Civil engineering technicians	149	162	4.00%	6	9
Electrical and electronic engineering technicians	103	110	3.30%	3	5
First-line supervisors/managers of construction trades and extraction workers	826	921	5.60%	47	65
Carpenters	979	972	-0.40%	-4	11
Cement masons and concrete finishers	126	155	11.20%	15	16
Construction laborers	486	602	11.30%	58	62
Operating engineers and other construction equipment operators	259	427	28.40%	84	90
Painters, construction and maintenance	190	196	1.50%	3	6
Pipelayers	100	196	40.20%	48	50
Plumbers, pipefitters, and steamfitters	555	559	0.40%	2	10
Sheet metal workers	131	134	0.90%	1	4
Construction and building inspectors	120	135	6.10%	8	10
All other construction and related workers	61	62	0.70%	0	1
Laborers and freight, stock, and material movers, hand	1,597	1,622	0.80%	13	77
TOTAL Construction	**6802**	**7497**	**10.2%**	**346**	**496**

Source: WESD, 2002.

Long-term occupational projections by the WESD indicate that between the years 2000 and 2005, the average number of openings per year in the group of occupations listed in Table G-3-1 would total 461 (WESD, 2002). PGF construction would occur between third quarter 2003 and third quarter 2005, and would require an average of 130 workers. Judging from these more current and localized data, demand for PGF construction workers would predominately be met locally.

References:

Martin, Chuck, 2002. Email communication from Chuck Martin, Plymouth Energy, and Katie Carroz, URS Corporation. January 7, 2003.

Washington State Employment Security Department (WESD), 2002. Short-term and long-term Occupational Projections for WDAs. Occupational Projections for the Benton-Franklin Workforce Development Area, All Occupations. http://www.wa.gov/esd/lmea/occdata/2year/ benf2yr.htm. http://www.wa.gov/esd/lmea/labrmrkt/occ/occ11.htm

RESPONSE TO COMMENT G-4

Although the Applicant has not yet selected a prime contractor or entered into a construction contract, the Applicant anticipates a contracting arrangement that utilizes the local labor pool. In particular, the Applicant plans to draw from the Tri-cities' pool of skilled labor for construction labor requirements. The construction contract would be negotiated and finalized after permitting is completed and financial closing is imminent.